

Section 201—Clearing and Grubbing Right of Way

201.1 General Description

This work includes clearing, grubbing, removing, and disposing vegetation and debris within the limits of construction and easement areas adjacent to the Right-of-Way as shown on the Plans or as designated by the Engineer. Except, do not remove objects designated to remain or removed according to other sections of these Specifications. This work also includes preserving (from injury and defacement) vegetation and objects designated to remain in place.

201.1.01 Definitions

Clearing: Removing and disposing trees, brush, stumps, logs, grass, weeds, roots, decayed vegetable matter, poles, stubs, rubbish, refuse dumps, sawdust piles, and loose boulders of 1 yd³ (1 m³) or less existing outside of the construction limits, debris resting on or protruding through the ground surface, or appearing on the Right-of-Way before final acceptance of the work.

Clearing also includes removing and disposing of obstructions, such as fences, bridges, buildings, and other incidental structures within the Right-of-Way unless the work or a portion of the work is:

- Removed as excavation
- Shown in the Proposal as a separate Pay Item
- Performed by others

Grubbing: Removal from the Right-of-Way and proper disposal of all objectionable matter defined above under clearing, which is embedded in the underlying soil.

Grubbing also includes removing and properly disposing of sidewalks, driveways, catch basins, drop inlets, manholes, curbing, retaining walls, utilities, foundations, paved floors, underground tanks (for removal of underground tanks see [Section 217](#)), and other structures within the Right-of-Way unless the work or portions of the work are:

- Obstructions removed as one of the excavation items
- Shown in the Proposal as separate Pay Items
- Removed by others

Objectionable Roots: Any of the following types of roots:

- Matted trees and brush roots (regardless of the size of the roots)
- Individual roots more than 0.75 in (20 mm) diameter
- Individual roots more than 3 ft (1 m) long regardless of size
- Large quantities of smaller roots present in the top 1 ft (300 mm) of the finished subgrade or road surface when detrimental to the work as determined by the Engineer.

Stumps: The butt of a tree with a diameter of 4 in (100 mm) or more. Measure the stump 6 in (150 mm) above the ground line.

201.1.02 Related References

A. Standard Specifications

[Section 107—Legal Regulations and Responsibility to the Public](#)

[Section 109—Measurement and Payment](#)

[Section 160—Reclamation of Material Pits and Waste Areas](#)

[Section 161—Control of Erosion and Sedimentation](#)

[Section 208—Embankments](#)

[Section 215 – Removal of Solid Waste](#)

[Section 217—Removal of Underground Storage Tanks](#)

B. Referenced Documents

General Provisions 101 through 150.

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201.1.03 Submittals

General Provisions 101 through 150.

201.2 Materials

General Provisions 101 through 150.

201.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

201.3 Construction Requirements

201.3.01 Personnel

General Provisions 101 through 150.

201.3.02 Equipment

General Provisions 101 through 150.

201.3.03 Preparation

General Provisions 101 through 150.

201.3.04 Fabrication

General Provisions 101 through 150.

201.3.05 Construction

A. General

The Engineer will establish Right-of-Way and construction lines and designate which trees, shrubs, and plants will remain in the ground. Preserve things designated to remain.

Apply the requirements of [Subsection 107.22](#), and [Section 161](#) to clearing and grubbing operations.

Strip grass immediately ahead of grading.

To prevent the spread of “Introduced Invasive Pest Species”, do the following:

1. Adhere to the restrictions of [Section 155.3.05.A](#) for moving soil, mulch, sod or plants, stump wood or timber with soil attached.
2. Adhere to the requirements of [Section 155.3.05.B](#) for cleaning of equipment, except that the USDA inspection will not be required for vegetative matter.
3. Dispose of vegetative parts of plants that may reproduce (roots and aboveground parts that bear fruit) by burning on site (where permitted) or bury with a minimum cover of 3 feet (1 meter) at an approved site. Obtain the Engineer’s approval for any other methods of disposal.

B. Clearing

Clear objects within the Right-of-Way as follows:

1. Choose a method of clearing that prevents damage to property, trees, or retained shrubbery in or outside of the Right-of-Way.
2. Remove stumps that are part of the clearing operation as specified under [Subsection 201.3.05.C, “Grubbing”](#).
3. Cut the stumps not grubbed as specified in this section.
4. Dispose of cleared materials as specified in [Subsection 201.3.05.E](#).

C. Grubbing

Grubbing consists of removing and disposing objectionable matter embedded in the underlying soil (defined in [Subsection 201.3.05.B, “Clearing”](#)) from the Right-of-Way.

1. Grubbing Operations

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When grubbing, remove abandoned obstructions referenced in [Subsection 201.1.01 Definitions](#) to the following depths:

- a. Under Pavements: Remove to a depth of at least 3 ft (1 m) below the finished subgrade.
- b. Underneath Other Structures: Remove to at least 3 ft (1 m) below the foundations of any proposed structure, including installations such as guard rail posts and utility poles.
- c. Elsewhere in the Right-of-Way: Remove as follows:
 - 1) Remove to at least 3 ft (1 m) below the finished surface of slopes and shoulders and 1 ft (300 mm) below natural ground outside construction lines.
 - 2) Thoroughly crack or break abandoned structures that may impound water. These structures include concrete floors, basements, and catch basins within 10 ft (3 m) of finished grade.
 - 3) Break floors so that no section greater than 10 ft² (1 m²) remains intact.

Except as modified under [Subsection 201.3.05.D](#), use the following procedure to perform grubbing:

- a. Remove stumps and other matter that cannot be removed by a root rake. Remove stumps to a minimum depth of 2 ft (600 mm) below the ground line.
- b. Rake areas containing objectionable roots to a depth of at least 6 in (150 mm) below the surface.
- c. Remove remaining objectionable matter by hand or other suitable means. When necessary, remove small roots (see [Subsection 201.1.01 “Objectionable Roots”](#)) detrimental to the work.
- d. Backfill stump holes and compact backfill to the approximate density of the surrounding soil.
- e. Harrow the area with a heavy-duty disc harrow that penetrates and turns the ground to at least 6 in (150 mm) deep.
- f. Remove objectionable matter exposed by the harrowing.
- g. Level the harrowed areas with blading equipment. Leave the grubbed areas smooth enough for a power mower.

D. Modifications of Clearing and Grubbing

Modify clearing and grubbing as follows:

1. In Excavation Areas

Modify clearing and grubbing in excavation areas as follows:

- a. Harrowing and leveling may be omitted.
- b. Do not fill stump holes except when the bottom of any stump hole extends below the elevation of the finished subgrade. In this case, fill the portion of each hole below subgrade elevation with suitable material compacted to at least the density of the surrounding soil.

2. In Embankment Areas

Modify clearing and grubbing in embankment areas as follows:

- a. Under 4.5 ft (1.4 m)
Clear and grub areas without modification where the original ground and finished grade differ in elevation 4.5 ft (1.4 m) or less.
- b. Over 4.5 ft (1.4 m)
Clear, but do not grub areas covered by embankments exceeding the 4.5 ft (1.4 m) elevation difference specified in step (a) above. Except the removal of unsound or decayed stumps.
Remove and backfill stumps according to [Subsection 201.3.05.C.2](#). When leaving sound stumps in place, cut them off to no more than 6 in (150 mm) above the original ground line.
- c. Embankment Areas Over Old Roads
Clear and grub without modification ditches and slopes of old roads to a depth that removes all objectionable matter to provide a firm foundation.

3. Areas Outside of Roadway

Except as specified in this section, clear and grub the entire Right-of-Way outside construction limits and leave it smooth and free from loose boulders and debris that would interfere with power mowers. Exceptions to the above requirements are as follows:

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a. Selective Clearing

When the Engineer directs to preserve certain trees and plants, protect them from injury. Trees to be removed shall be felled to prevent injury to standing trees, plants, and improvements to be preserved.

Cut off tree branches overhanging the roadway within 20 ft (6 m) of the finished grade close to the boles. Also, remove other branches to create a balanced appearance. Treat scars from branch removal with a heavy coat of asphaltic tree paint. Grub areas adjacent to selected trees and shrubs without damage to living roots of the selected trees or shrubs.

b. Special Treatment Areas

Clear special treatment areas according to the Plan notes.

c. Steep Slopes

Clear or selectively clear slopes that are too steep for power mowers or that are subject to excessive erosion. Do not grub in these areas.

d. Grassed Areas

Do not grub (if the Engineer approves) reasonably large areas outside construction limits covered with grasses and smooth enough for power mowers. Remove stumps, trees, and other objectionable matter.

4. Bridge Sites

Modify clearing and grubbing at bridge sites as follows:

a. Stream Bridges

Clear the Right-of-Way for stream bridges for the full length of the proposed structure. Cut stumps and brush flush with the ground line.

The Engineer will require a second cutting if high water prevents cutting stumps flush with the ground. If the Engineer requires more than two cuttings, see [Subsection 201.5](#) for payment.

Remove drift and stumps where necessary to permit installation of rip rap, piling, piers, abutments, wing walls, and bents. Properly backfill the holes.

Preserve stump and brush root systems at river and stream banks when they have been cut flush with the ground line.

b. Other Bridges

Clear and grub bridges (other than stream bridges) as specified within this specification for roadway areas and areas outside of the roadway.

E. Removal and Disposal of Materials

1. Merchantable Timber and Buildings

The Department may dispose of merchantable timber and buildings, or may allow a property owner to remove them from the land granted for Right-of-Way before the Contractor begins operation. Therefore, the Department does not guarantee that merchantable timber or buildings will be on the Right-of-Way when the work begins.

Material salvaged from removing timber or buildings becomes the property of the Contractor.

2. Combustible Material

Abide by Federal, State, or local codes when the Right-of-Way (or any portion of the Right-of-Way) lies within an area where burning is restricted. All combustible material except sawdust piles may be burned on the Right-of-Way except where prohibited by local air pollution control regulations.

a. Prevent fire from spreading to adjacent areas and damaging living trees and shrubs designated to remain on the Right-of-Way.

b. Prevent damage to public and private installations either within or adjacent to the Right-of-Way and prevent damage to traveling public.

c. Obtain suitable areas for burning or disposing of the combustible material when necessary (at the Contractor's expense). The Engineer shall approve these disposal areas.

d. Dispose of material according to [Subsection 201.3.05.E.3](#). If the disposal area is located on private property, present written authority to the Engineer (signed by the property owner) granting the Contractor and the Department permission to use the area for the purpose intended. Reclaim the disposal area according to [Section 160](#).

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- e. Completely remove sawdust within the construction limits. Haul the sawdust to approved disposal areas, or deposit it on the Right-of-Way in a layer less than 3 in (75 mm) deep. Immediately mix the sawdust with the underlying soil by discing and harrowing. Leave the harrowed surface smooth.
3. Solid Waste Material

Place solid waste material either in the embankment (provided the material is satisfactory for embankment construction) or in a Department-approved solid waste disposal site.

The classification of non-regulated and regulated solid waste materials are defined by the Environmental Protection Division (EPD) of the Georgia Department of Natural Resources (GDNR) rules and regulations. Dispose of these materials using the following procedures.

 - a. Nonregulated Solid Waste Material

1) Excess material such as soil, rock, brick, concrete (with and without reinforcement), and cured asphalt may be placed within the Right-of-Way, provided there is available room. Place these materials according to [Section 208](#) and as directed by the Engineer.

 - 1) Common fill such as soil, rock, brick, and concrete (with and without reinforcement) may be placed outside the Right-of-Way. Place the material in uniform layers 3 ft (1 m) thick or less and distributed to avoid pockets.
 - 2) Fill voids with finer material. Cover the last layer of fill with at least 2 ft (600 mm) of soil.
 - 3) Construct the fill according to [Section 208](#), except compact it to at least 90 percent of the maximum laboratory dry density.
 - 4) Materials that may be recycled or reused such as asphaltic concrete, Portland Cement concrete, plastic, metal, and materials that qualify under EPD regulations for sale or use may be reclaimed by the Contractor.
 - b. Regulated Material
 - 1) If not properly layered and compacted, dispose of inert waste (organic debris) such as stumps, limbs and leaves, cured asphalt disposed off the Right-of-Way, and items listed in [Subsection 201.3.05.E.3.a](#) using an inert landfill permit according to GDNR/EPD rules. Or, take the material to a permitted solid waste landfill. Take other regulated construction/demolition and nonhazardous solid waste, such as forms, barrels, plastic, and other by-products of construction to a construction/demolition landfill or to a municipal solid waste landfill.
 - 2) Dispose of oils, solvents, fuels, untreated lead paint residue, and other solid hazardous waste through a properly licensed hazardous waste disposal facility.

Remove municipal solid waste discovered during construction or shown on the Plans according to [Section 215](#).

201.3.06 Quality Acceptance

General Provisions 101 through 150.

201.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

201.4 Measurement

The Department does not measure clearing and grubbing separately for payment. The area is considered the full Right-of-Way width for the length of the Project including slope and construction easement areas shown on the Plans.

201.4.01 Limits

General Provisions 101 through 150.

201.5 Payment

Payment for this Item, completed and accepted, will be made at the lump sum price bid. The payment will be full compensation for all work specified in this Section including final cleanup as required.

If the Engineer requires more than two cuttings to clear the Right-of-Way for stream bridges (according to [Subsection 201.3.05.D.4.a](#)), the additional cuttings are paid for as a Force Account according to [Subsection 109.05](#).

Include the cost of waste disposal for solid waste materials in the bid price of other Pay Items.

Payment will be made under:

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Item No. 201	Clearing and grubbing	Per lump sum
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201.5.01 Adjustments

General Provisions 101 through 150.